

We Claim:

1. A conveyor system having a primary conveyor and a cantilevered conveying belt, said cantilevered conveying belt comprising:
 - 5 (a) a cantilevered frame having at least one conveyor belt; and
 - (b) a belt tension assembly attached to said cantilevered frame.
2. The apparatus according to Claim 1, further including an upstream accumulator.
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3. The apparatus according to Claim 2, wherein said upstream accumulator includes: a frame; at least one belt; at least one pair of opposed rollers; and a motor attached to at least one of said rollers.
4. The apparatus according to Claim 2, further including an accumulator control system.
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5. The apparatus according to Claim 4, wherein said accumulator control system includes: a package “on” detector and a package “off” detector.
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6. The apparatus according to Claim 4, wherein said accumulator control system further includes a control interface to said primary conveyor.
7. The apparatus according to Claim 1, wherein cantilevered frame
25 includes a base and a cantilevered deck attached to said base.
8. The apparatus according to Claim 7, wherein said base is lazy L-shaped.
9. The apparatus according to Claim 7, wherein said base includes a
30 vertical support wall.

10. The apparatus according to Claim 9, further including a horizontal deck mounting surface attached to said vertical support wall.
- 5 11. The apparatus according to Claim 10, further including a nut bar and a plurality of fasteners for attaching said cantilevered deck to said horizontal deck mounting surface.
- 10 12. The apparatus according to Claim 7, wherein a portion of said cantilevered deck is trapezoidal shaped.
13. The apparatus according to Claim 7, wherein said cantilevered deck is formed from a plurality of extruded tubes.
- 15 14. The apparatus according to Claim 13, wherein said plurality of extruded tubes are joined to one another by finger splices.
- 20 15. The apparatus according to Claim 7, wherein said cantilevered frame further includes a support arm having one end selectively moveable to said cantilevered deck.
- 25 16. The apparatus according to Claim 15, wherein said support arm includes a first connector attached to said base and a second connector attached to said cantilevered deck.
17. The apparatus according to Claim 16, wherein said first connector is a hinge.
- 30 18. The apparatus according to Claim 16, wherein said second connector is a locking mechanism.

19. The apparatus according to Claim 18, wherein said locking mechanism includes an over center latch and a secondary spring lock.

20. The apparatus according to Claim 1, wherein cantilevered frame
5 further includes a belt drive.

21. The apparatus according to Claim 20, wherein said belt drive includes a plurality of belts; at least one pair of opposed rollers; and a motor attached to at least one of said rollers.
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22. A belt tension assembly for a cantilevered conveying belt for a conveyor system, the cantilevered conveying belt having a frame having at least one conveyor belt and a pair of opposed rollers, said belt tension assembly comprising:

- (a) a roller support connected to at least one of said rollers;
- 15 (b) a roller support rod for movably connecting said roller support to said frame;
- (c) a roller support rod spring between said roller support rod and said frame; and
- (d) a spring adjustment assembly.

20 23. The apparatus according to Claim 22, wherein said spring is a compression spring.

24. The apparatus according to Claim 22, wherein spring adjustment
25 assembly includes: a first fixed spring stop; a second moveable spring stop; and an actuator for adjusting the position of said second moveable spring stop.

25. The apparatus according to Claim 24, wherein said actuator for adjusting the position of said second moveable spring stop includes: a threaded rod; a
30 sliding nut; and a drive on one end of said threaded rod.

26. The apparatus according to Claim 25, wherein said drive is a beveled gear drive.

27. A conveyor system having a primary conveyor and cantilevered conveying belt, said cantilevered conveying belt comprising:

- (a) a cantilevered frame having at least one conveyor belt;
- (b) a belt tension assembly attached to said cantilevered frame, said belt tension assembly including: (i) a roller support connected to at least one of said rollers; (ii) a roller support rod for movably connecting said roller support to said frame; (iii) a roller support rod spring between said roller support rod and said frame; and (iv) a spring adjustment assembly; and
- (c) an upstream accumulator.

28. The apparatus according to Claim 27, wherein said upstream accumulator includes: a frame; at least one belt; at least one pair of opposed rollers; and a motor attached to at least one of said rollers.

29. The apparatus according to Claim 27, further including an accumulator control system.

30. The apparatus according to Claim 29, wherein said accumulator control system includes: a package “on” detector and a package “off” detector.

31. The apparatus according to Claim 29, wherein said accumulator control system further includes a control interface to said primary conveyor.

32. The apparatus according to Claim 27, wherein cantilevered frame includes a base and a cantilevered deck attached to said base.

33. The apparatus according to Claim 32, wherein said base is lazy L-shaped.
34. The apparatus according to Claim 32, wherein said base includes a vertical support wall.
35. The apparatus according to Claim 34, wherein said vertical support wall further includes a horizontal deck mounting surface.
36. The apparatus according to Claim 35, wherein said horizontal deck mounting surface includes a nut bar and a plurality of fasteners for attaching said cantilevered deck to said horizontal deck mounting surface.
37. The apparatus according to Claim 32, wherein a portion of said cantilevered deck is trapezoidal shaped.
38. The apparatus according to Claim 32, wherein said cantilevered deck is formed from a plurality of extruded tubes.
39. The apparatus according to Claim 38, wherein said plurality of extruded tubes are joined to one another by finger splices.
40. The apparatus according to Claim 32, wherein said cantilevered frame further includes a support arm having one end selectively moveable to said cantilevered deck.
41. The apparatus according to Claim 40, wherein said support arm includes a first connector attached to said base and a second connector attached to said cantilevered deck.

42. The apparatus according to Claim 41, wherein said first connector is a hinge.

43. The apparatus according to Claim 41, wherein said second connector is
5 a locking mechanism.

44. The apparatus according to Claim 43, wherein said locking mechanism includes an over center latch and a secondary spring lock.

10 45. The apparatus according to Claim 27, wherein cantilevered frame further includes a belt drive.

46. The apparatus according to Claim 45, wherein said belt drive includes a plurality of belts; at least one pair of opposed rollers; and a motor attached to at least
15 one of said rollers.

47. The apparatus according to Claim 27, wherein said spring is a compression spring.

20 48. The apparatus according to Claim 27, wherein spring adjustment assembly includes: a first fixed spring stop; a second moveable spring stop; and an actuator for adjusting the position of said second moveable spring stop.

49. The apparatus according to Claim 48, wherein said actuator for
25 adjusting the position of said second moveable spring stop includes: a threaded rod; a sliding nut; and a drive on one end of said threaded rod.

50. The apparatus according to Claim 49, wherein said drive is a beveled gear drive.
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